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IGUS® Bearing and Bearing Carrier

Jonah Newton

11/23/2021

IGUS Bearing Dimensions

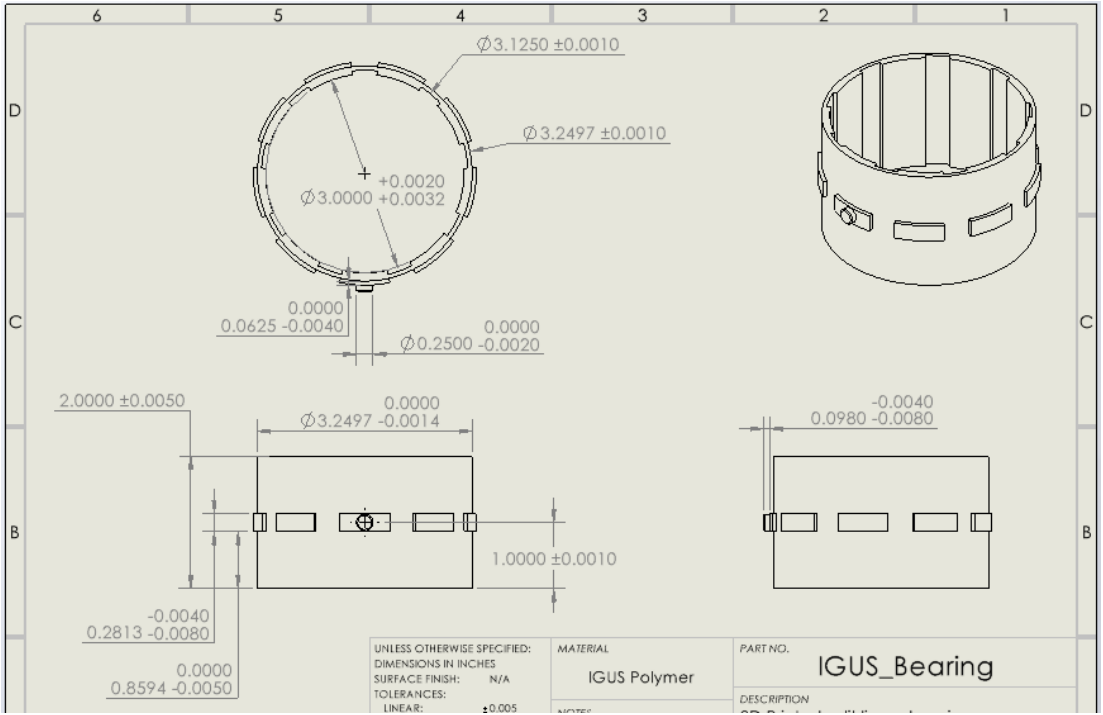

Figure 1. IGUS Bearing Dimensional Drawing

Notes:

See last slide (slide 6) for reference dimensions given by IGUS (contact: Blake Bodell, bbodell@igus.net).

Some dimensions have been changed per the meeting on 11/18/2021 and based on clearance needs for the drop tower (contact Josh Lewis, jolewis@igus.net)

Action Items for IGUS:

Need a recommendation on the number and circumferential width of the bearing “ribs”.

Bearing Carrier Dimensions - Overview

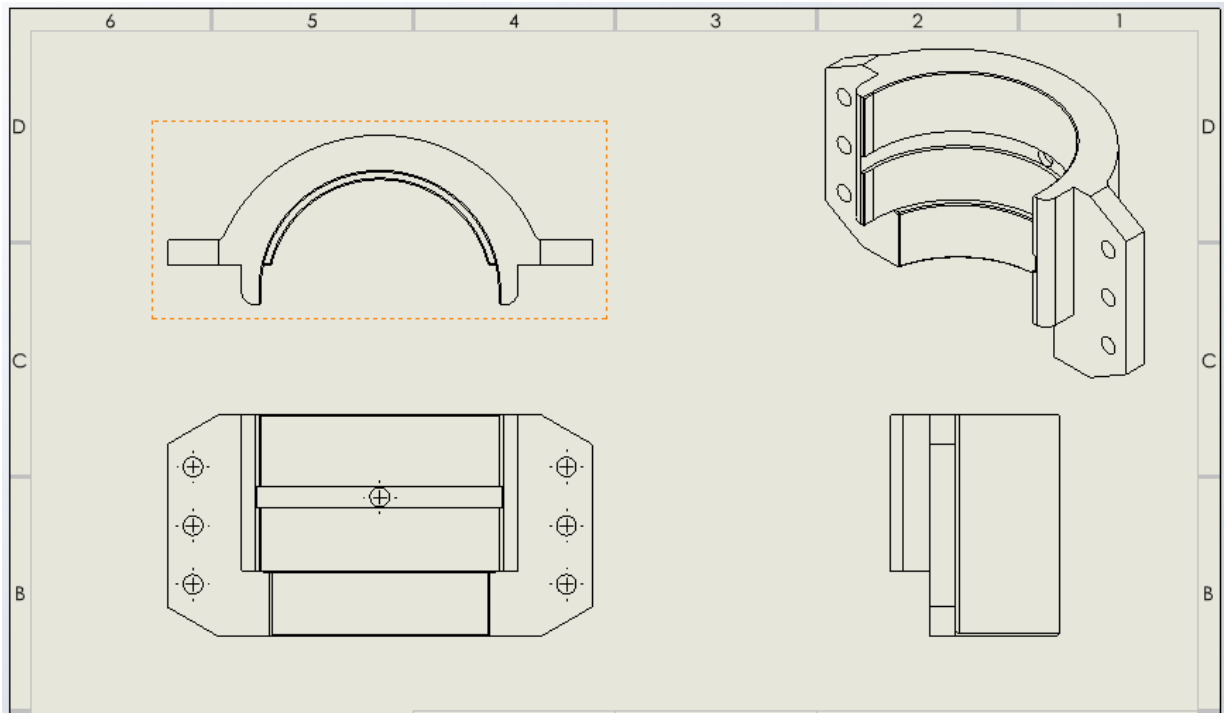

Figure 2. Bearing Carrier Three-view Drawing

Notes:

Only one half of the bearing carrier will be shown for dimensional purposes.

The other half has similar critical dimensions but excludes the locating hole that can be seen in the center of the bottom left view.

Bearing Carrier Dimensions – Slot Section

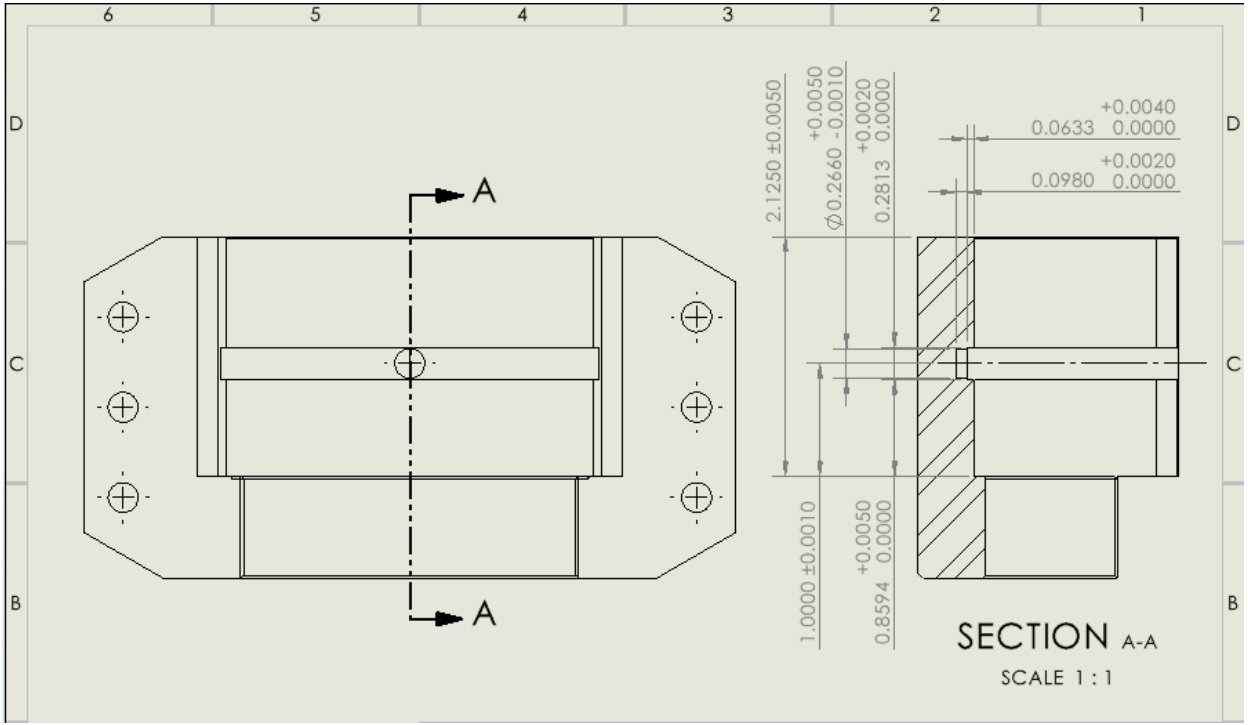

Figure 3. Bearing Carrier Slot Section Dimensional Drawing

Notes:

A section view of the bearing carrier raceway, slot, and locating hole is shown in Section A-A.

Dimensioning was based on Figure 6.

Bearing Carrier Dimension – Critical Diameter

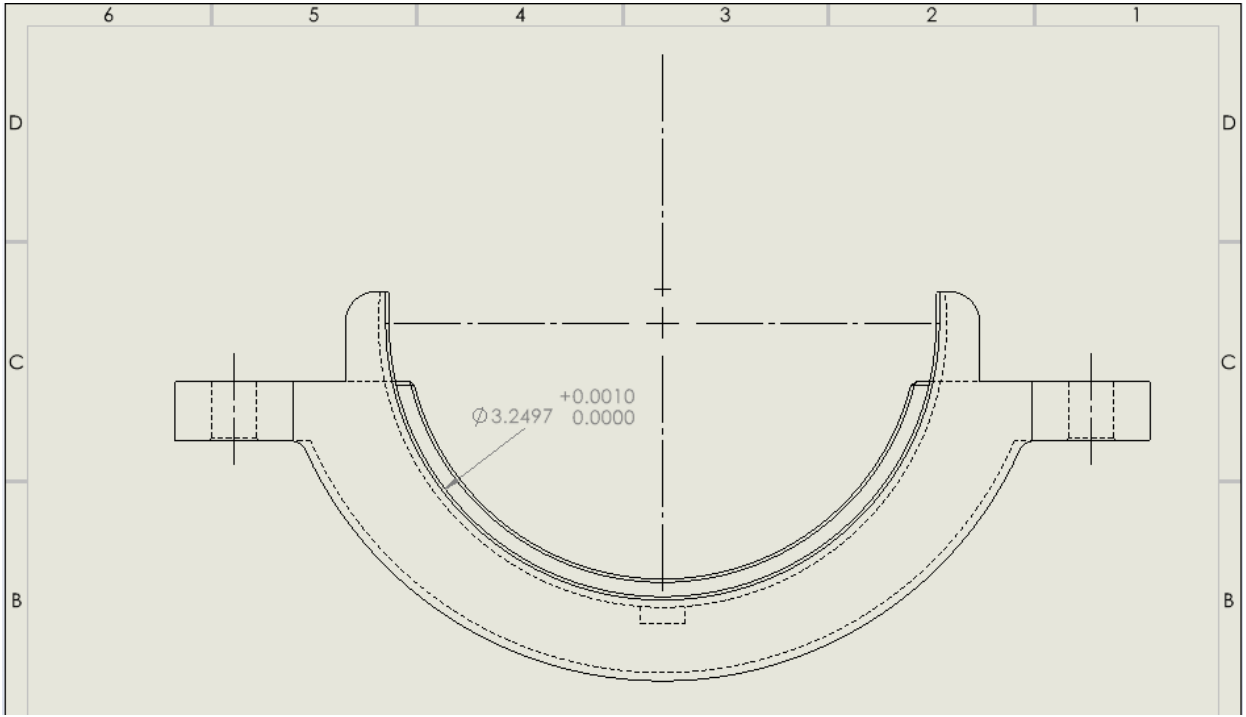

Figure 4. Bearing Carrier Critical Diameter Dimensional Drawing

Notes:

Drawing shows only the critical diameter of the bearing raceway for the IGUS bearing.

IGUS Provided Dimensional Recommendations

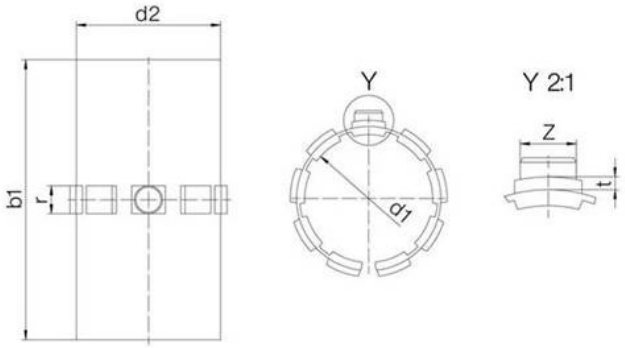

Figure 5. IGUS Bearing Dimensional Recommendations

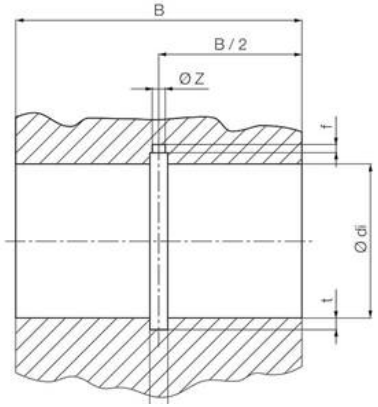

Figure 6. Bearing Housing Dimensional Recommendations

Dimensions for Drylin Liner:

-d1, Liner ID: 3.00”
-Tolerance: .0024 - .0040” (standard tolerance)
-d2, Liner OD: 3.2497”
-b1, Length: 2”? (This is your current bearing width/length)
-r: .2813” -0.004/-0.008
-t: .0625”: -0.004
-z: .2280” -0.002

Dimensions for Installation Housing Bore:

-0 di, Housing bore 3”: 3.2497” - 3.2507”
-0 z: .24” +0.008
-t: .0633” +0.004 (nom is 0.2 mm larger than liner)
-r: .2813” +0.002
-f: .098” +0.002
-B: 2”? *h10 (this is your current bearing width/length)